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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,507	07/27/2001	Kim Clohessy	RSW920010069US1	9737

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EXAMINER	
TRUONG, CAMQUY	
ART UNIT	**PAPER NUMBER**
2195	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/917,507	CLOHESSY ET AL.	
	Examiner	Art Unit	
	Camquy Truong	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-25 are presented for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 5, 8, 10, 12, 17, and 23 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

The language of claims 5,17, 23 raises a question as to whether the claim is directed merely to an abstract idea, and would not result in a practical application producing a useful, concrete, and tangible result to form the basis of statutory subject matter under 35.U.S.C. 101. For example, reserving maximum resource that does not produce any tangible result.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-9, 14-25, are rejected under 35 U.S.C. 102(e) as being anticipated by Graham, Jr. et al. (U.S. Patent 6,402,028 B1).

4. As to claims 1, 14 and 20, Graham teaches the invention as claimed including: A runtime-resource management method for use with a portable device, said method comprising the steps of:

Identifying one or more new application components scheduled to be loaded and stored on said portable device (a list of available application is initially selected for loading to the card, col. 11, lines 45-47; col. 21, lines 34-39), each of said one or more new application components having an associated resource description list (RDL) (for each selected application, an application profile is created, col. 11, lines46-52; application profile identifies the application source code and include resource requirements of an application such as memory..., col. 6, lines 9-14);

Determining maximum required runtime resources for said one or more new application components from said associated RDLs (an application profile identifies the application resource requirements of an application such as memory, col. 6, lines 9-12);

Determining a CARSRMAX (Current Available Runtime System Resources of the portable device assuming already loaded application components are using the MAXimum amount of runtime resources reserved for their use) of said portable device (determining whether the memory available on the card to be processed is adequate for the selected application, col. 14, lines 53-55; col. 17, lines 52-54; col. 21, lines 42-48; col. 10, lines 44-46);

Comparing, using said processor said maximum required runtime resources for said one or more new application components to said CARSRMAX (memory checks to ensure the card has enough memory for resource's requirement of application, col. 13, lines 39-40; col. 12, lines 2-6; col. 14, lines 52-57); and

Prohibiting, using said processor said one or more new application components from being loaded and stored on said portable device if said CARSRMAX is less than said maximum required runtime resources (if the card does not has enough memory, then another card is selected, col. 17, lines 54-56).

5. As to claims 2, 15 and 21, Graham teaches:

Determining total runtime system resources of said device (col. 21, lines 33);

Determining total maximum reserved runtime resources for application components stored in the flash memory of said device (col. 21, lines 42); and

Calculating said CARSRMAX based on said total runtime system resources and said total maximum reserved runtime resources (the memory available on the card after any number of application are loaded is calculated, col. 21, lines 48-50).

6. As to claims 3, 16 and 22, Graham teaches:

Removing one or more of said application components stored in the memory of said device (application already loaded into memory of the card may vary from loaded...deleted states, col. 10, lines 58-61); and

Releasing maximum runtime resources reserved for said one or more application components removed from the memory of device, thereby increasing said CARSRAMAX of device (update card profile reflects the applications loaded onto a card and the resources remaining on that card, col.20, line 67 – col.21, line 2).

7. As to claim 4, Graham teaches said CARSRMAX comprises requirements for at least one or more runtime system resources selected form a group consisting of RAM, threads, and sockets (RAM, col. 10, lines 44-46).

8. As to claims 5, 17 and 23, Graham teaches reserving maximum runtime resources required for each application component stored in flash memory of the portable device. (These application profiles contain applications to be installed on the smart card base on the checking by reviewing requirements of each application and the RAM available of the smart card, col. 11, lines 45-55, and col. 12, lines 2-7).

9. As to claims 6,18 and 24, Graham teaches running one or more of said application components stored in memory of device using no more than said maximum required runtime resources reserved for each of said one or more loaded application components (determining whether the memory available on the card to be processed is adequate for the selected applications, col. 14, lines 52-57).

10. As to claims 7, 19, 25, Graham teaches

Opening said one or more applications components stored in memory (identification of application already loaded, col. 14, lines 46-47);

Monitoring requests for runtime resources by each of said one or more application components stored in memory (col. 6, lines 7-12);

Comparing runtime resources in use plus runtime resources requested to said maximum required runtime resources reserved for each of said one or more application components stored in memory (memory checks to ensure the card has enough memory for an application, col. 13, lines 39-40; col. 12, lines 2-6; col. 14, lines 52-57); and

Preventing each of said one or more application components from using more than said maximum required runtime resources reserved for each of said one or more loaded application components stored in memory (if the card does not has enough memory, then another card is selected, col. 17, lines 54-56).

11. As to claim 8, Graham teaches allocating a segment of RAM within the device to each of said application components stored in memory based on RAM requirements in an RDL associated with each of said application component, said allocated segment of RAM being for use by said application component stored in memory (the selected application to be installed in the card base on checking the resource requirement of each application and memory available of the card, col. 12, lines 2-7; col. 6, lines 8-25).

12. As to claim 9, Graham teaches:

running one or more application components stored in memory using said allocated segments of RAM (determining whether the memory available on the card to be processed is adequate for the selected applications, col. 14, lines 52-57);

Monitoring RAM use by said one or more application component stored in memory (col. 20, line 62 – col. 21, line 13);

Preventing each of said one or more application components stored in memory from using more than said segment of RAM allocated to each of said one or more application component stored in memory (if the card does not has enough memory, then another card is selected, col. 17, lines 54-56);

13. Claims 5, 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Robsman (U.S. Patent 6,477,561 B1).

14. As to claim 5, Robsman teaches the invention as claimed including reserving maximum runtime resources required for each application component stored in flash memory of the portable device. (hand-held devices, col. 2, lines 50-57) (in response to task request from other program modules, assigning them to the limit number of threads, col. 4, lines 48-51; col. 5, lines 1-5).

15. As to claim 10, Robsman teaches writing thread requirement to a thread table for each of said application component stored in flash memory based on thread requirement in an RDL associated with each of said application stored in memory (the

thread pool manager containing a plurality of thread and the functions keep a current count of the number of active execution threads that assigned to task request from program, col. 1, lines 10-18; col.4, lines 46-54; col. 4, line 67 – col. 5, line 5).

16. As to claim 11, Robsman teaches:

Running one or more of said application components stored in flash memory (programs and component reside in different storage component of the computer, and are executed by the data processor, col. 4, lines 35-40);

Monitoring thread use by one or more running application component (the function keep the current count the number of active execution threads, col. 4, line 67 – col. 5, line 2); and

Preventing each of said one or more running application components from using more threads than said thread requirements listed on said thread table for each of said one or more running application components (if the limit has already been met, the thread is temporally delayed, col. 5, lines 6-11 and lines 38-41).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. Claim 5, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koved (U.S. Patent 5,915,085).

19. As to claim 5, Koved teaches the invention substantially as claimed including reserving maximum runtime resources required for each application component (thread) stored in flash memory of the portable device (managing a resource request for each thread according to the associated requirement, col. 2, lines 46-48).

20. Koved does not explicitly teach the portable computer. However, Koved allures to any type of computer (col. 4, lines 16-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made that Koved in fact provides the portable computer. In addition, Portable computers are well known in the art.

21. As to claim 12, Koved teaches the invention as claimed including writing socket requirement (open network connection, col. 8, lines 47-49) to a thread table for each of said application component stored in flash memory based on thread requirement in an RDL associated with each of said application stored in memory (each thread may also be associated with a set of virtual resource and requirements. The virtual resource and requirement may also include resource requirements and security requirement, col. 5, lines 5-7 and lines 35-38).

22. As to claim 13, Koved teaches:

Running one or more of said application components stored in flash memory (system libraries manage the execution of threads running the application, col. 5, lines 60-62; col. 2, lines 15-17);

Monitoring thread use by one or more running application component (check for resource limit being exceeded, col. 8, lines 43-51); and

Preventing each of said one or more running application components from using more threads than said thread requirements listed on said thread table for each of said one or more running application components (if the resource limit exceed, calling the system SecurityManager with an indication that resource limits were exceeded, col. 8, lines 51-55).

Conclusion

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR of Public PAIP. Status

information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

January 18, 2007

LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER